

Mr. Adnan Yasir (Assistant Resident Engineer Package-III (PCP) Jaranwala)
MM Pakistan (Pvt.) Ltd.
Upgradation of Sewerage System and Construction of Waste Water Treatment Plant (WWTP)
Jaranwala City (Package-02)

Reference # CED/TFL **7133** (Dr. Rizwan Riaz) Dated: 24-06-2025
Reference of the request letter # MMP/1095/JARAWALA/DS/105/2025 Dated: 21-06-2025

Weight & Size Test Report (Page – 3/3)

Date of Test 30-06-2024

Description Angle Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	4x4x1/2	5861	303.5	19.31	105.7	105.8	12.6	Iqbal
2	4x4x1/2	5953	308.8	19.28	104.3	105.1	12.8	Iqbal
3	3x3x3/8	1019	104.8	9.72	76.4	78.4	9.2	AM Steel
4	3x3x3/8	1012	103.5	9.78	74.6	77.9	8.7	AM Steel
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only four Samples for Test								

Test Performed and Verified by:

To,
 Mr. Adnan Yasir [Assistant Resident Engineer Package-III (PCP) Jaranwala]
 MM Pakistan (Pvt.) Ltd.
 Upgradation of Sewerage System and Construction of Waste Water Treatment Plant (WWTP)
 Jaranwala City (Package-02)

Reference # CED/TFL **7133** (Dr. Rizwan Riaz) Dated: 24-06-2025
 Reference of the request letter # MMP/1095/JARAWALA/DS/105/2025 Dated: 21-06-2025

Tension Test Report (Page-1/3)

Date of Test 30-06-2025
 Gauge Length 2 inches
 Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	4×4×1/2	12.60 x 31.80	400.68	13860	20920	339.3	512.2	0.7	35.0	Iqbal
2	4×4×1/2	12.80 x 31.60	404.48	13910	21020	337.4	509.8	0.7	35.0	Iqbal
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 2 Samples for Bend test										

Bend Test	
4×4×1/2 Strip Bend Test Through 180 Degree is Satisfactory	
4×4×1/2 Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,
 Mr. Adnan Yasir [Assistant Resident Engineer Package-III (PCP) Jaranwala]
 MM Pakistan (Pvt.) Ltd.
 Upgradation of Sewerage System and Construction of Waste Water Treatment Plant (WWTP)
 Jaranwala City (Package-02)

Reference # CED/TFL 7133 (Dr. Rizwan Riaz) Dated: 24-06-2025
 Reference of the request letter # MMP/1095/JARAWALA/DS/105/2025 Dated: 21-06-2025

Tension Test Report (Page-2/3)

Date of Test 30-06-2025
 Gauge Length 2 inches
 Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	3×3×3/8	9.20 x 31.80	292.56	11370	17250	381.3	578.4	0.7	35.0	AM Steel
2	3×3×3/8	8.70 x 31.90	277.53	11010	16480	389.2	582.5	0.6	30.0	AM Steel
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 2 Samples for Bend test										

Bend Test	
3×3×3/8 Strip Bend Test Through 180 Degree is Satisfactory	
3×3×3/8 Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,
 Mr. Sadaqat Ahmad (Resident Engineer)
 Nespak (Pvt.) Ltd.
 Establishment of 200 Bedded Mother and Child Hospital & Nursing College at District Bahawalpur

Reference # CED/TFL **7100** (Dr. M. Kahif)
 Reference of the request letter # 4460/13/SA/04/488

Dated: 19-06-2025
 Dated: 16-06-2025

Weight & Size Test Report (Page – 2/4)

Date of Test 20-06-2025

Description Unit Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Dia	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	
1	MS Seamless Pipe 8"	3092	75.8	40.79	218.6	7.90	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
Only one sample for Test							

Test Performed and Verified by:

To,

Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/217 Dated: 26-06-2025

Tension Test Report (Page -1/8)

Date of Test 30-06-2025

Gauge length 600 mm

Description Steel Strand Tensile Test as per ASTM A-416

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	15.24 (0.6")	1102.0	1125.0	24200	237.40	27500	269.78	204	>3.50	W1
2	15.24 (0.6")	1102.0	1126.0	24400	239.36	27500	269.78	198	>3.50	W2
3	15.24 (0.6")	1102.0	1129.0	25200	247.21	27600	270.76	207	>3.50	W3
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Only three samples for Test										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

Test Performed and Verified by:

To,

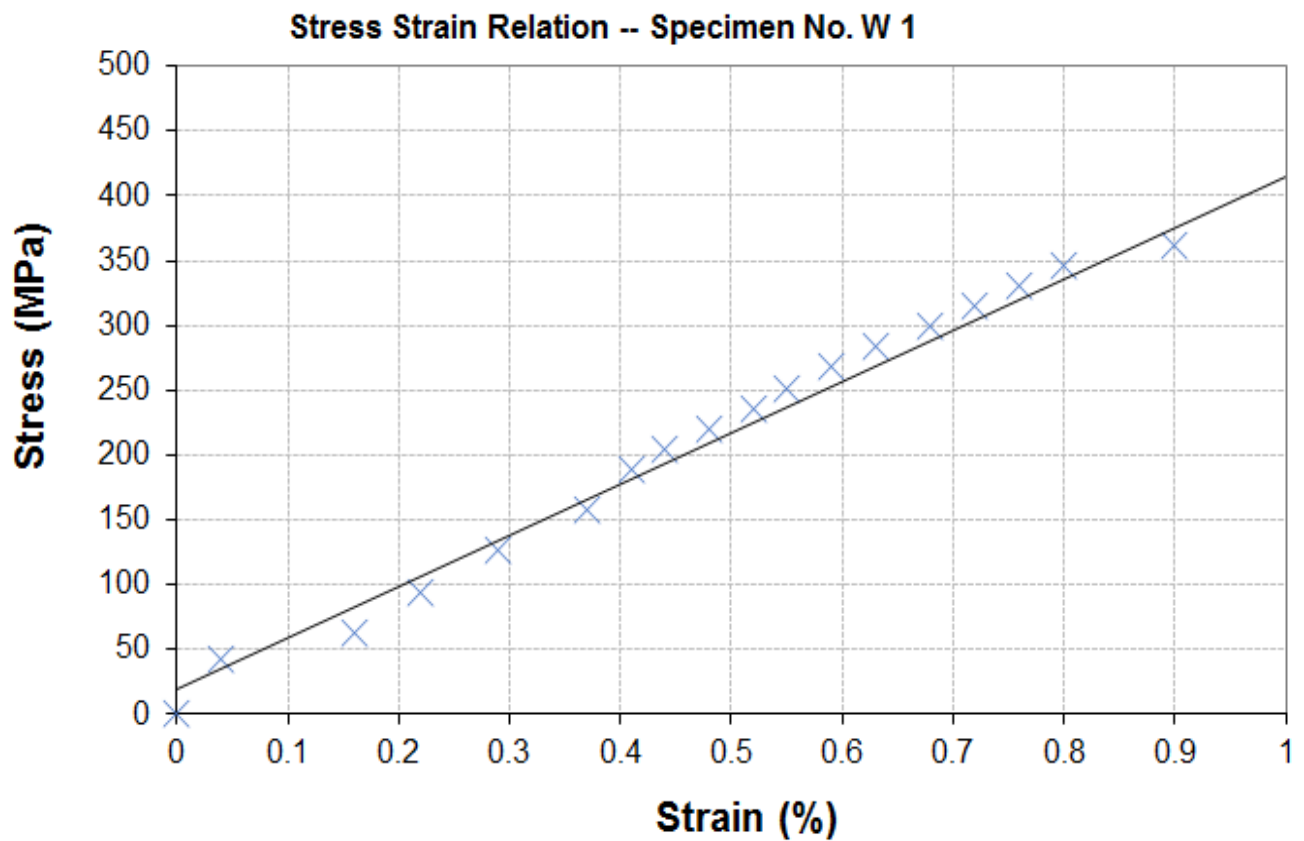
Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/217 Dated: 26-06-2025

Graph (Page – 2/8)



Test Performed and Verified by:

To,

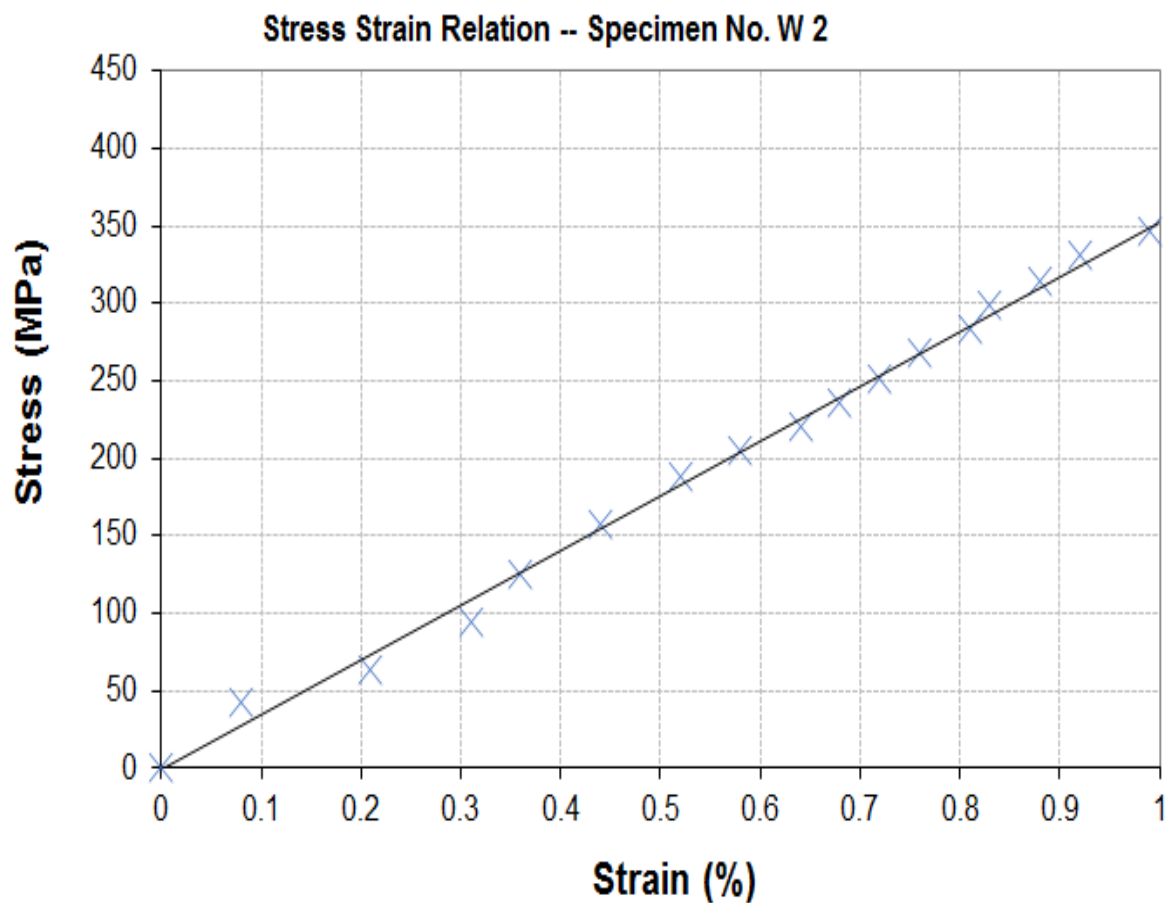
Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/217 Dated: 26-06-2025

Graph (Page – 3/8)



Test Performed and Verified by:

To,

Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

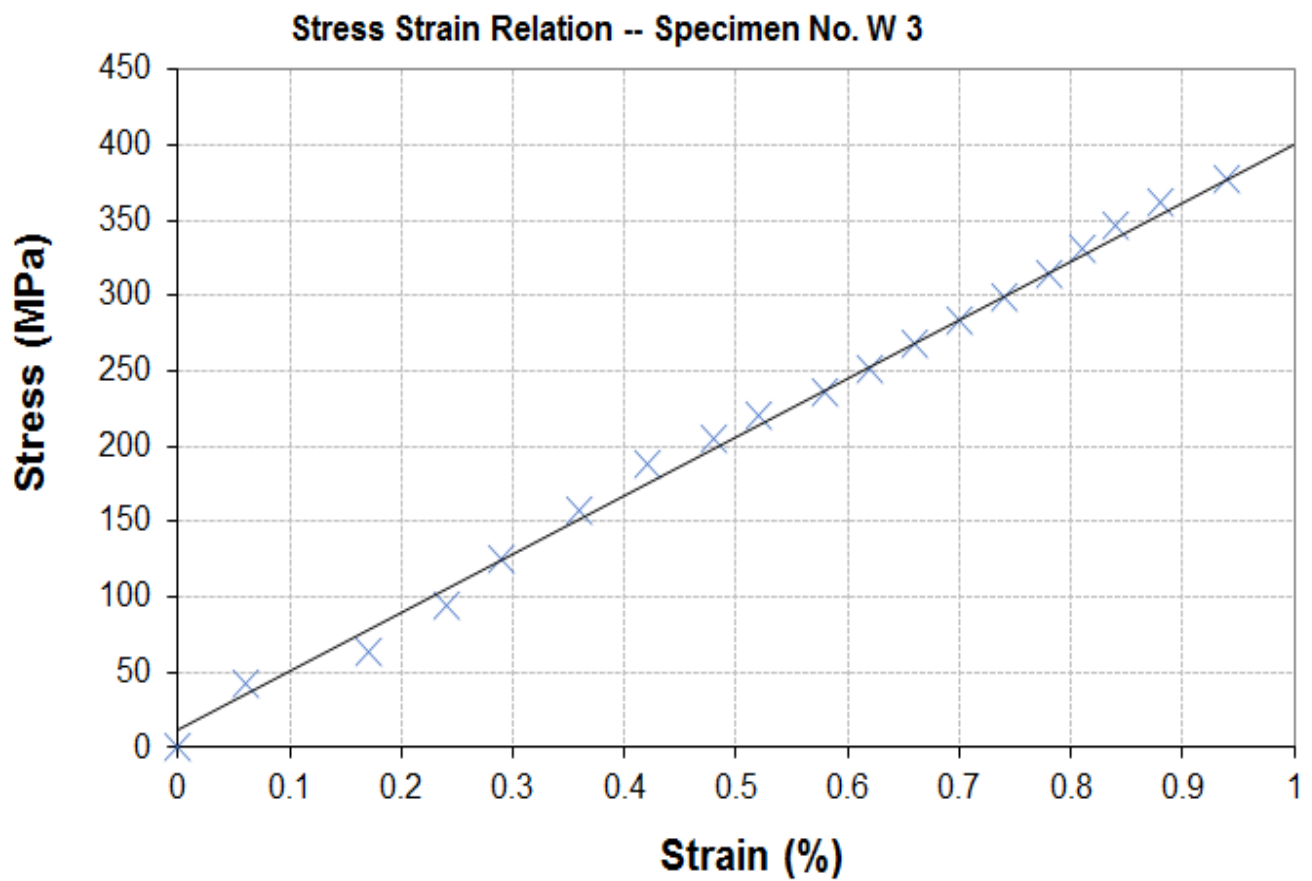
Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/217 Dated: 26-06-2025

Graph (Page – 4/8)

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Test Performed and Verified by:

To,
Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz) Dated: 26-06-2025
Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/218 Dated: 26-06-2025

Tension Test Report (Page -5/8)
Date of Test 30-06-2025
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)	GPa		
1	15.24 (0.6")	1102.0	1127.0	25400	249.17	27700	271.74	206	>3.50	W4
2	15.24 (0.6")	1102.0	1127.0	25300	248.19	27600	270.76	207	>3.50	W5
3	15.24 (0.6")	1102.0	1128.0	24400	239.36	27500	269.78	203	>3.50	W6
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Only three samples for Test										

Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

Test Performed and Verified by:

To,

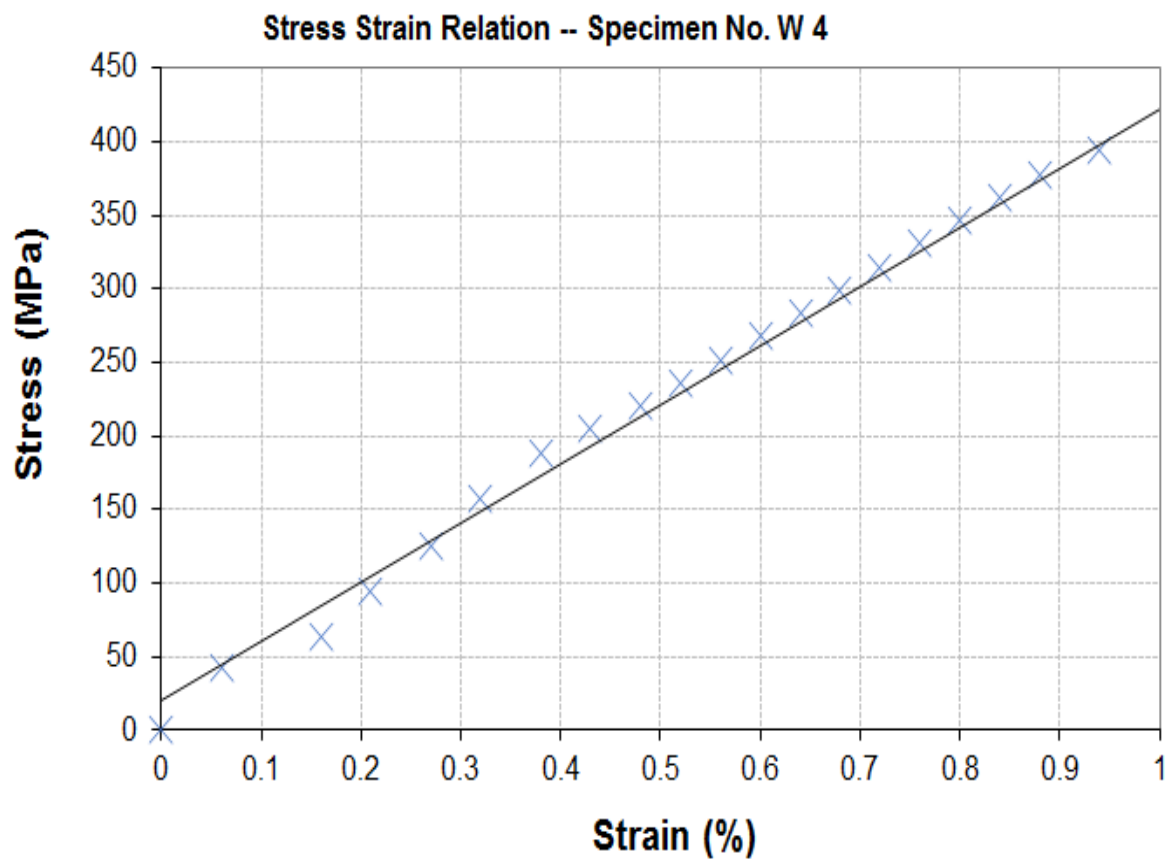
Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/218 Dated: 26-06-2025

Graph (Page – 6/8)



Test Performed and Verified by:

To,

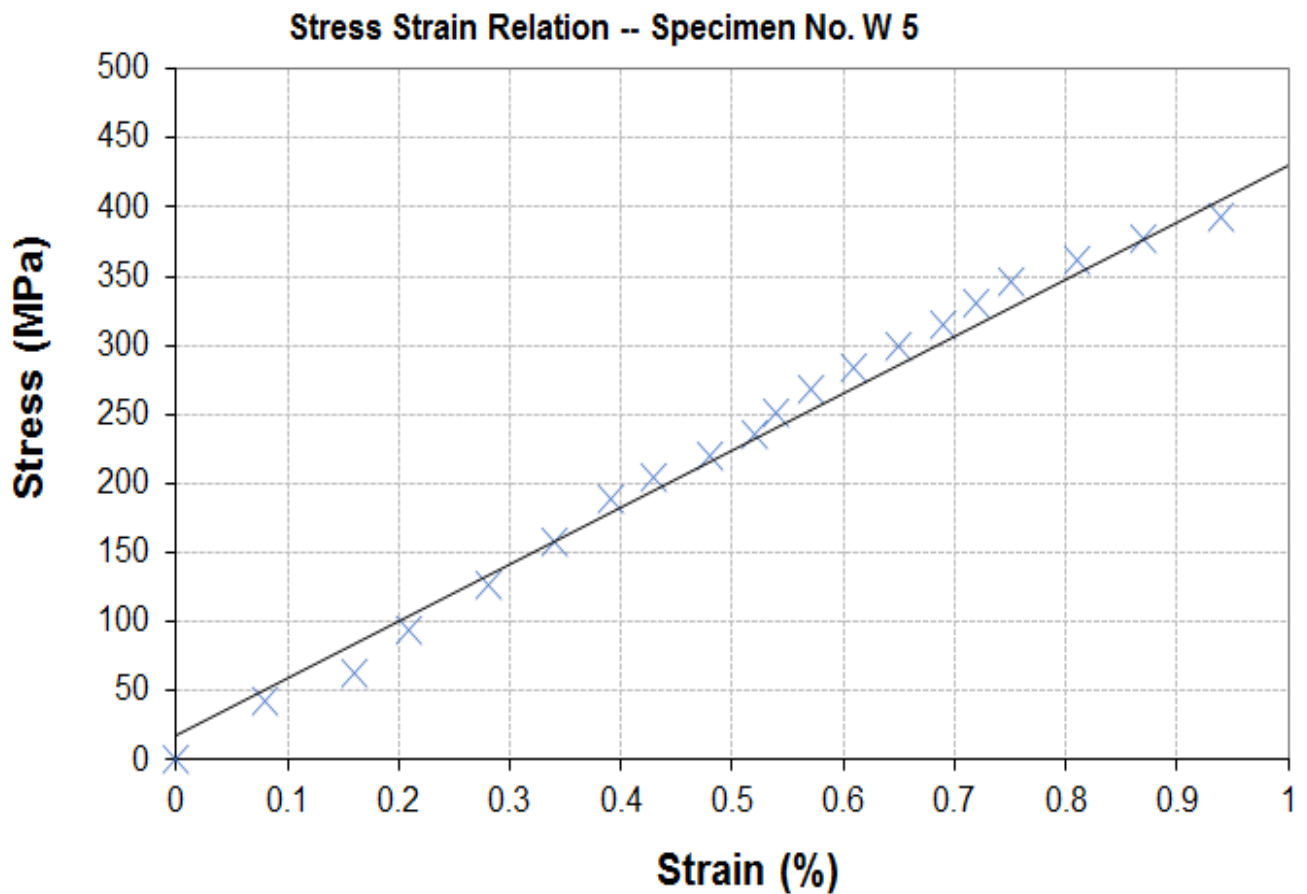
Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/218 Dated: 26-06-2025

Graph (Page – 7/8)



Test Performed and Verified by:

To,

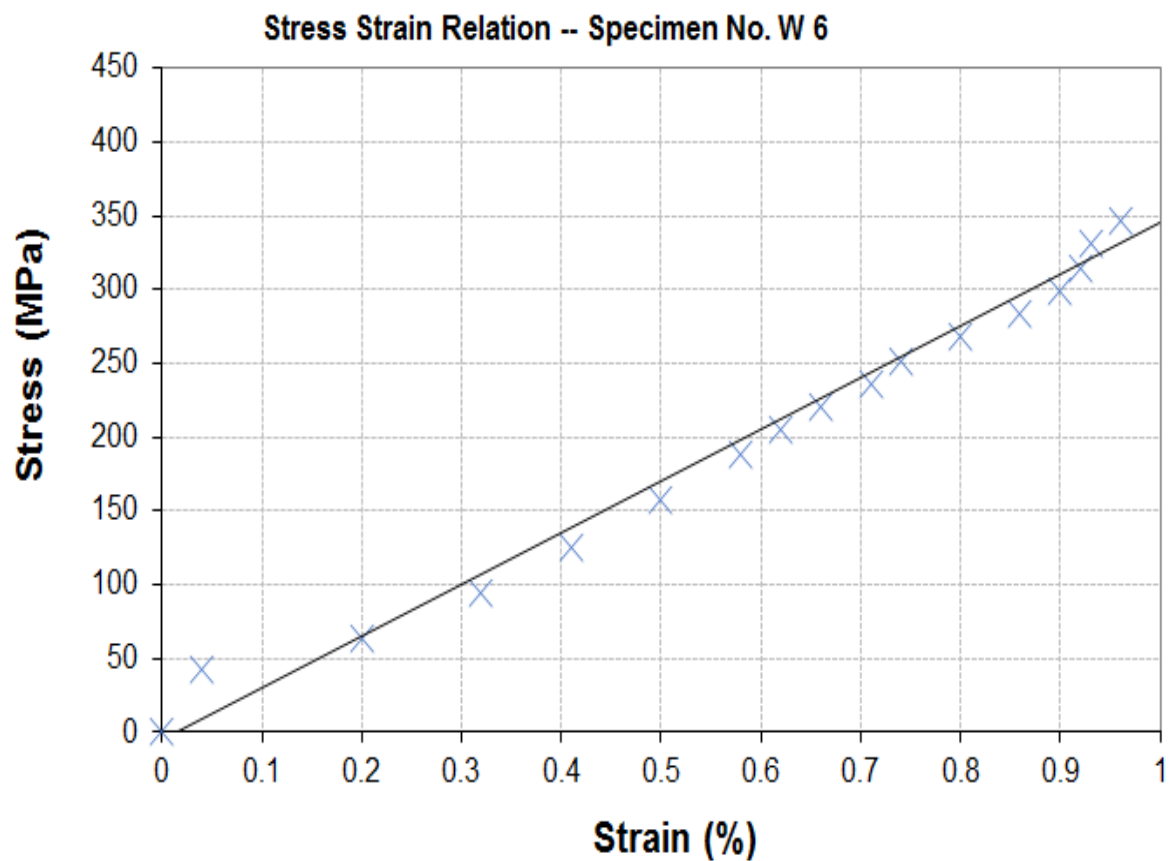
Deputy Project Manager
China Civil Engineering Construction Corporation (KKH-01)

Reference # CED/TFL **7141** (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # CCECC/PAK/DASUFIELD/KKH-01/2025/218 Dated: 26-06-2025

Graph (Page – 8/8)



Test Performed and Verified by:

To,

Mr. Ghulam Abbas (XEN)

Garrison Engineer (Army)-II, Lahore

CA No. ENC-A-88/2025 Construction of 8x E Type Flats (G+3), Block No.2 at PMAD Colony, Lahore

Reference # CED/TFL 7142 (Dr. Rizwan Riaz)

Dated: 26-06-2025

Reference of the request letter # 6003/199/E6

Dated: 19-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.386	3	0.380	0.110	0.113	26.00	35.00	53115	51565	71502	69414	1.4	17.5	3"/8
2	0.381	3	0.378	0.110	0.112	25.20	34.70	51481	50534	70889	69584	1.5	18.8	3"/8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test

3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Executive Engineer
Highway Division, Taunsa.
Re-Construction / Rehabilitation of Metalled Road from (N-55) Adda Trimin Disty 25 to
Gadi Morr via Basti KaloWala, Basti Bukhara Including Pile Foundation Bridge, Length =
16.00 Km

Reference # CED/TFL **7144** (Dr. Rizwan Riaz)
Reference of the request letter # 2956

Dated: 26-06-2025
Dated: 12-06-2025

Tension Test Report (Page -1/1)

Date of Test 30-06-2025

Gauge length 600 mm

Description Steel Strand Tensile Test as per ASTM A-416

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)		
1	12.70 (1/2")	780.0	779.0	18400	180.50	20000	196.20	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

Test Performed and Verified by:

To,
 Mr. Usman Hafeez (GM-Supply Chain)
 Air Link Communication Limited
 Construction Project at Sunder Green

Reference # CED/TFL 7149 (Dr. Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 27-06-2025
 Dated: 27-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025
 Gauge Length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.370	3	0.372	0.110	0.109	33.50	44.50	68437	69261	90909	92003	1.0	12.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Muhammad Saleem (Material Engineer Nespak)

Nespak (Pvt.) Ltd.

"Rainwater Management- Drainage Arrangement for Sore Point" at Tajpura (Amina & Babri), Lahore
(Islamabad Premium Steel)

Reference # CED/TFL 7150 (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter # Nespak/Wasa/ADP/UGWT/TP/ME/09

Dated: 24-05-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.380	3	0.377	0.110	0.112	31.50	47.70	64351	63391	97446	95992	1.3	16.3	-
2	0.382	3	0.378	0.110	0.112	31.20	47.50	63739	62499	97038	95151	1.3	16.3	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test

3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

Ref: CED/TFL/06/7151

Dated: 27-06-2025

Dated: 30-06-2025 (Dr. Rizwan Riaz)

To

Jiang Goulong (QA/QC Manager)
Power Construction Corporation of China Ltd.
Tarbela 5th Extension Hydropower Project Management Department

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/7151) (Page -1/4)

Reference to your Letter No. PCCCL/T5-CIVIL/2025-005, dated: 25/06/2025 on the subject cited above. One Hydraulic Jack (Jack No. 203, Gauge No. HC72601822736) as received by us has been calibrated. The results are tabulated as under:

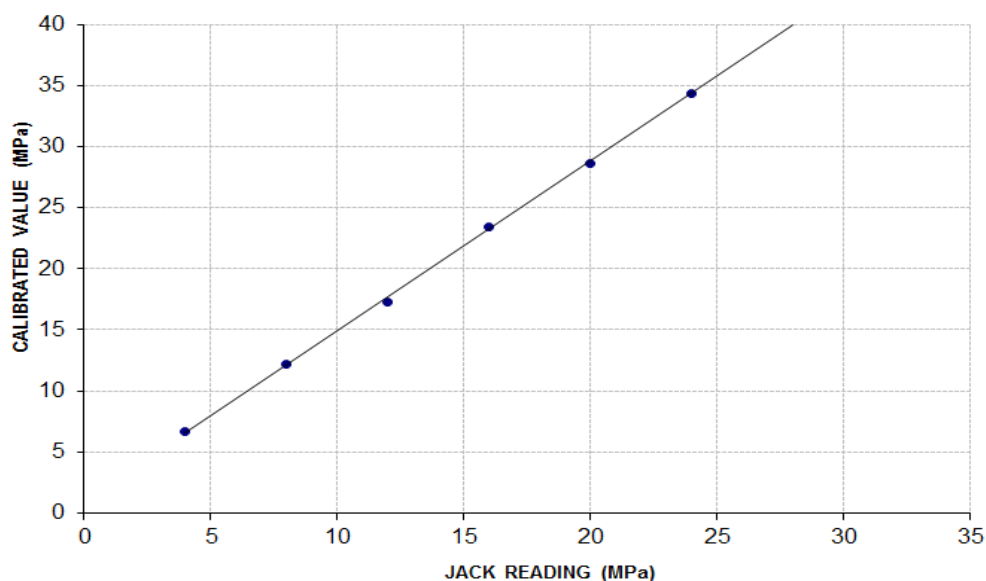
Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)	4	8	12	16	20	24	28
Calibrated Load (kg)	31400	57000	81000	109800	134000	160800	188400
Calibrated Pressure (Mpa)	6.71	12.17	17.30	23.45	28.62	34.34	40.24

The Ram Area of Jack = 459.2 cm²

Calibration Curve For Jack No. 203 (Gauge # 72601822736)

$$\text{Calibrated Value (MPa)} = (1.3951 \times \text{Jack Reading (MPa)}) + 0.9397$$



Test Performed and Verified by:

Ref: CED/TFL/06/7151

Dated: 27-06-2025

Dated: 30-06-2025 (Dr. Rizwan Riaz)

To

Jiang Goulong (QA/QC Manager)
Power Construction Corporation of China Ltd.
Tarbela 5th Extension Hydropower Project Management Department

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/7151) (Page -2/4)

Reference to your Letter No. PCCCL/T5-CIVIL/2025-005, dated: 25/06/2025 on the subject cited above. One Hydraulic Jack (Jack No. 204, Gauge No. HC72601822725) as received by us has been calibrated. The results are tabulated as under:

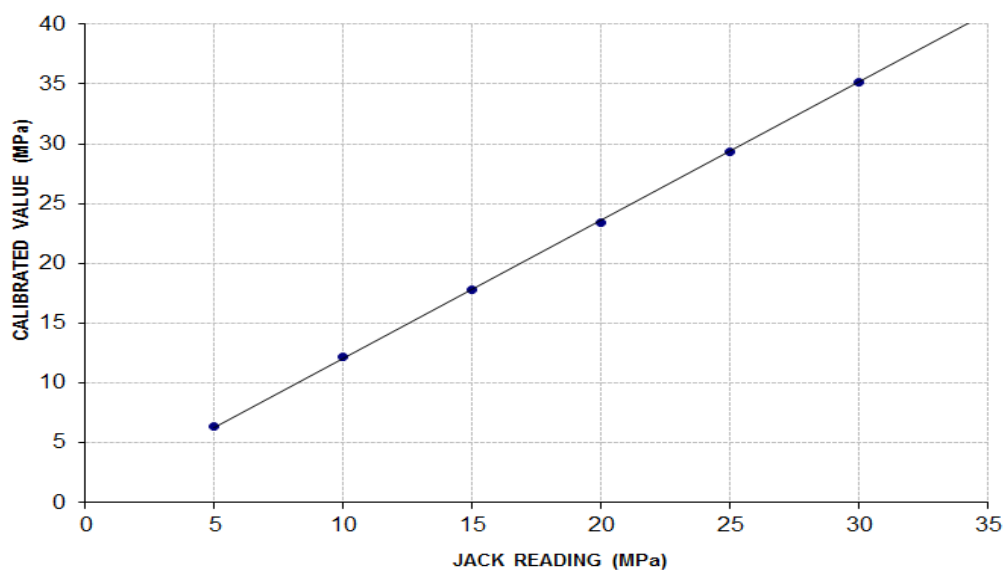
Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)	4	8	12	16	20	24	28
Calibrated Load (kg)	30000	57000	83200	109800	137200	164800	192600
Calibrated Pressure (Mpa)	6.41	12.17	17.77	23.45	29.30	35.20	41.13

The Ram Area of Jack = 459.2 cm²

Calibration Curve For Jack No. 204 (Gauge # HC72601822725)

$$\text{Calibrated Value (MPa)} = 1.1554 \times \text{Jack Reading (MPa)} + 0.5248$$



Test Performed and Verified by:

Ref: CED/TFL/06/7151

Dated: 27-06-2025

Dated: 30-06-2025 (Dr. Rizwan Riaz)

To

Jiang Goulong (QA/QC Manager)
Power Construction Corporation of China Ltd.
Tarbela 5th Extension Hydropower Project Management Department

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/7151) (Page -3/4)

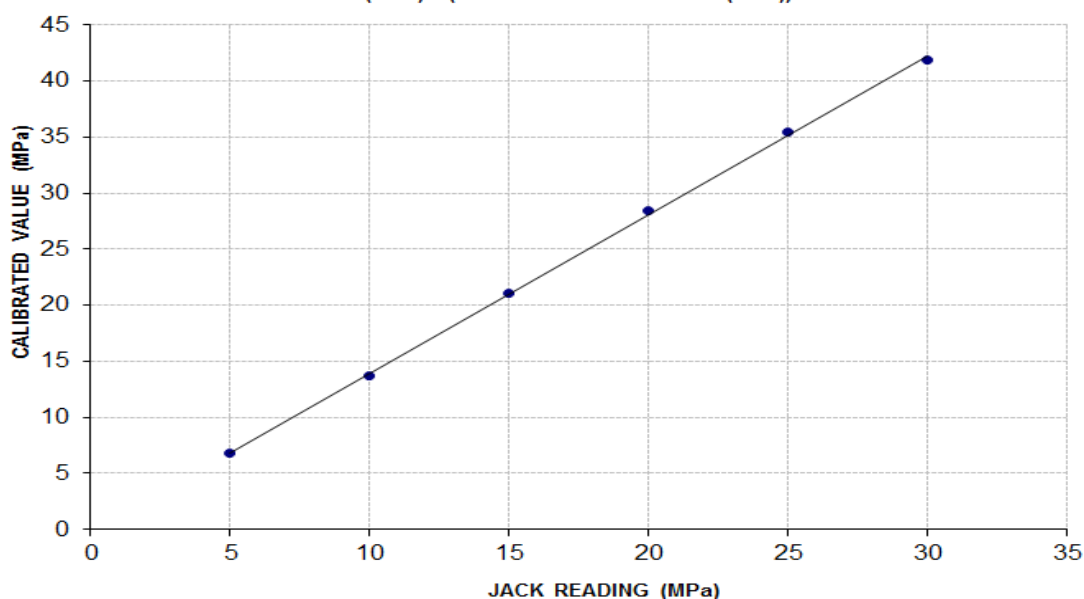
Reference to your Letter No. PCCCL/T5-CIVIL/2025-005, dated: 25/06/2025 on the subject cited above. One Hydraulic Jack (Jack No. 201, Gauge No. 3820) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30
Calibrated Load (kg)	31800	64400	98400	133200	166200	196200
Calibrated Pressure (Mpa)	6.79	13.75	21.02	28.45	35.49	41.90

The Ram Area of Jack = 459.2 cm²

Calibration Curve For Jack No. 201 (Gauge # 3820)
Calibrated Value (MPa) = (1.4183 x Calibrated Value (MPa)) - 0.2534



Test Performed and Verified by:

Ref: CED/TFL/06/7151

Dated: 27-06-2025

Dated: 30-06-2025 (Dr. Rizwan Riaz)

To

Jiang Goulong (QA/QC Manager)
Power Construction Corporation of China Ltd.
Tarbela 5th Extension Hydropower Project Management Department

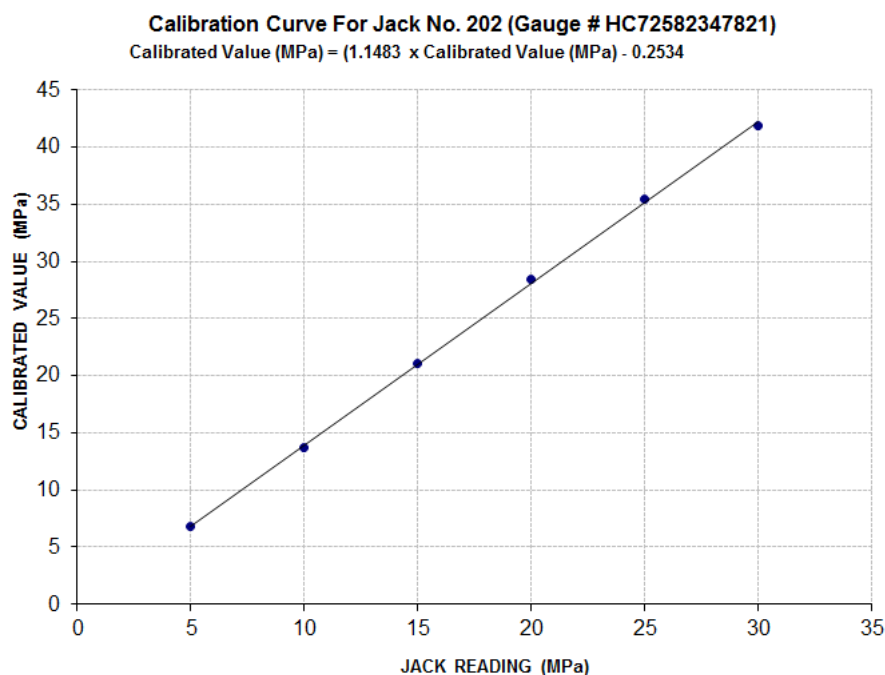
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/7151) (Page -4/4)

Reference to your Letter No. PCCCL/T5-CIVIL/2025-005, dated: 25/06/2025 on the subject cited above. One Hydraulic Jack (Jack No. 202, Gauge No. HC72582347821) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	4	8	12	16	20	24	28
Calibrated Load (kg)	31400	57600	82800	109400	136800	162800	190400
Calibrated Pressure (Mpa)	6.71	12.30	17.68	23.36	29.22	34.77	40.66

The Ram Area of Jack = 459.2 cm²



Test Performed and Verified by:

To,

Mr. M. Raza Razzaq (Site Engineer)
OZ Developers (Pvt.) Ltd.
Construction of High-Rise Building "Lahore Sky" at Ferozepur Road Lahore
(Hunza Steel)

Reference # CED/TFL 7152 (Dr. Rizwan Riaz)
Reference of the request letter # Nil

Dated: 27-06-2025
Dated: 26-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.095	10	1.238	1.270	1.203	36400	49000	63170	66676	85036	89756	1.7	21.3	-
2	4.028	10	1.228	1.270	1.184	38000	53000	65946	70756	91978	98686	1.4	17.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test	
# 10 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. M. Raza Razzaq (Site Engineer)
OZ Developers (Pvt.) Ltd.
Construction of High-Rise Building "Lahore Sky" at Ferozepur Road Lahore
(Kamran Steel)

Reference # CED/TFL 7153 (Dr. Rizwan Riaz)
Reference of the request letter # Nil

Dated: 27-06-2025
Dated: 26-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.238	10	1.259	1.270	1.245	35800	51600	62129	63362	89548	91326	1.6	20.0	-
2	4.141	10	1.245	1.270	1.217	35400	48200	61434	64121	83648	87306	1.7	21.3	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test

10 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,
 Mr. M. Jameel
 40-C-III Gulberg III, Lahore
 -

Reference # CED/TFL 7154 (Dr. Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 27-06-2025
 Dated: 27-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025
 Gauge Length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.367	3	0.371	0.110	0.108	36.00	47.70	73544	75017	97446	99397	1.0	12.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,
M/s AJ Contractors
Tawal Site ID: TWPKSB0007
-

Reference # CED/TFL

7155 (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter #

AJContractor/Steel/Tawal/23

Dated: 20-06-2025

Tension Test Report

(Page-1/2)

Date of Test

30-06-2025

Gauge Length

8 inches

Description

Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in ²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.386	10	0.380	0.120	0.113	34.00	49.50	63670	67434	92697	98176	1.4	17.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 0 Samples for Bend test														

Bend Test

Test Performed and Verified by:

To,

M/s AJ Contractors

Engro Enfra Share Site ID: (ES2-JCA-05518), (ES2-JCA-05516), (ES2-SDK-03033),
(ES2-NWS-02129) (ES2-NSD-03433), (ES2-JCA-03121)

Reference # CED/TFL

7155 (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter #

AJContractor/Steel/ENGro/20

Dated: 20-06-2025

Tension Test Report

(Page-2/2)

Date of Test

30-06-2025

Gauge Length

8 inches

Description

Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.383	10	0.378	0.120	0.1125	33.70	49.20	63109	67332	92135	98301	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 0 Samples for Bend test														

Bend Test

Test Performed and Verified by:

To,
 Mr. Sulman (Material Engineer)
 BH Consultants
 4-Stroey Commercial Building Construction (Frame Structure)
 (5-Star Steel)

Reference # CED/TFL 7156 (Dr. Rizwan Riaz)
 Reference of the request letter # 55

Dated: 27-06-2025
 Dated: 25-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025
 Gauge Length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.372	3	0.373	0.110	0.109	31.70	50.20	64760	65173	102554	103208	1.2	15.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 1 Samples for Bend test														

Bend Test														
# 3 Bar Bend Test Through 180 Degree is Satisfactory														

Test Performed and Verified by:

To,

Mr. Nasimullah Jan (Resident Engineer)

SAK Consultants

Construction of Approach Roads of Kalur Kot Bridge at River Indus. ADP Scheme No.

1216/21044 (2024-25)

Reference # CED/TFL **7157** (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter # SAK-HDIK/RE-24

Dated: 25-06-2025

Tension Test Report (Page -1/4)

Date of Test 30-06-2025

Gauge length 600 mm

Description Steel Strand Tensile Test as per ASTM A-416

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	780.0	787.0	17700	173.64	19300	189.33	207	>3.50	xx
2	12.70 (1/2")	780.0	788.0	18300	179.52	19600	192.28	205	>3.50	xx
3	12.70 (1/2")	780.0	787.0	17700	173.64	19500	191.30	195	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only three samples for Test										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a

2. Load versus percentage strain graphs are attached

Test Performed and Verified by:

To,

Mr. Nasimullah Jan (Resident Engineer)

SAK Consultants

Construction of Approach Roads of Kalur Kot Bridge at River Indus. ADP Scheme No. 1216/21044 (2024-25)

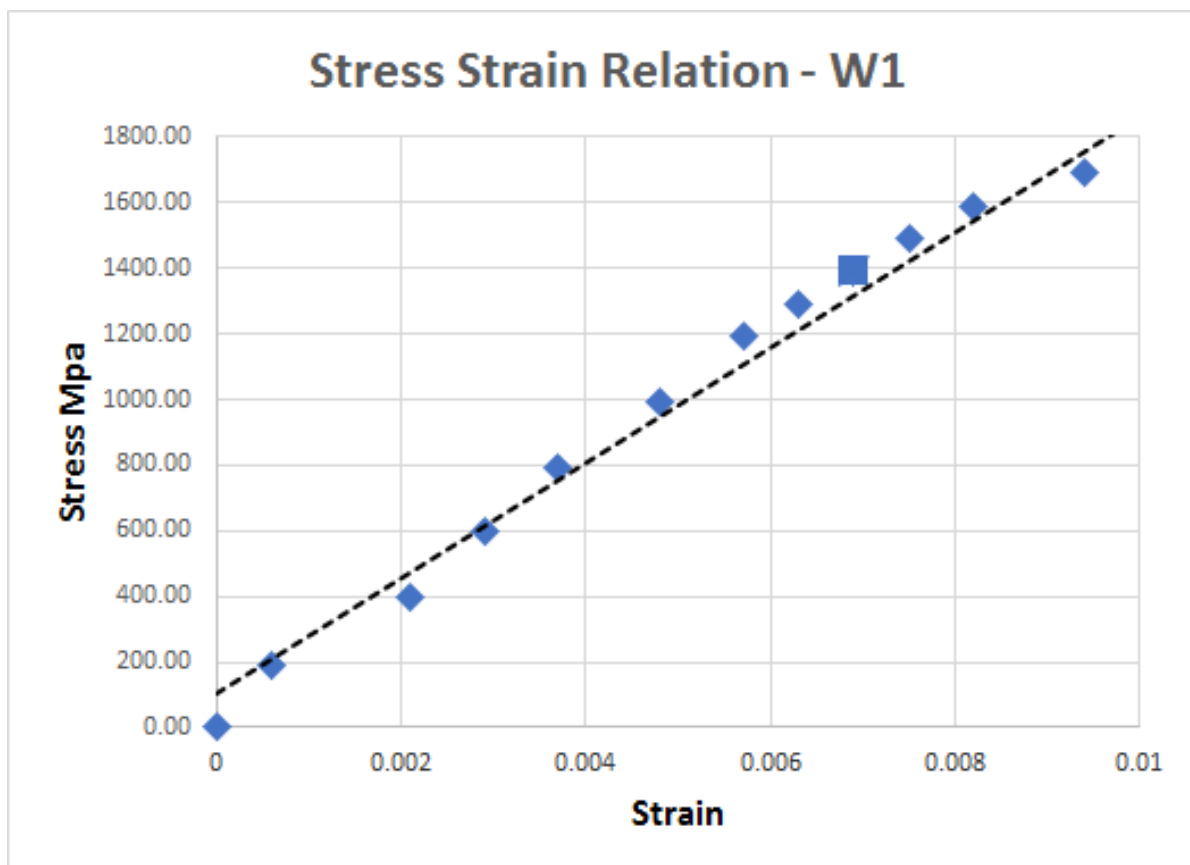
Reference # CED/TFL **7157** (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter # SAK-HDIK/RE-24

Dated: 25-06-2025

Graph (Page – 2/4)



Test Performed and Verified by:

To,

Mr. Nasimullah Jan (Resident Engineer)

SAK Consultants

Construction of Approach Roads of Kalur Kot Bridge at River Indus. ADP Scheme No. 1216/21044 (2024-25)

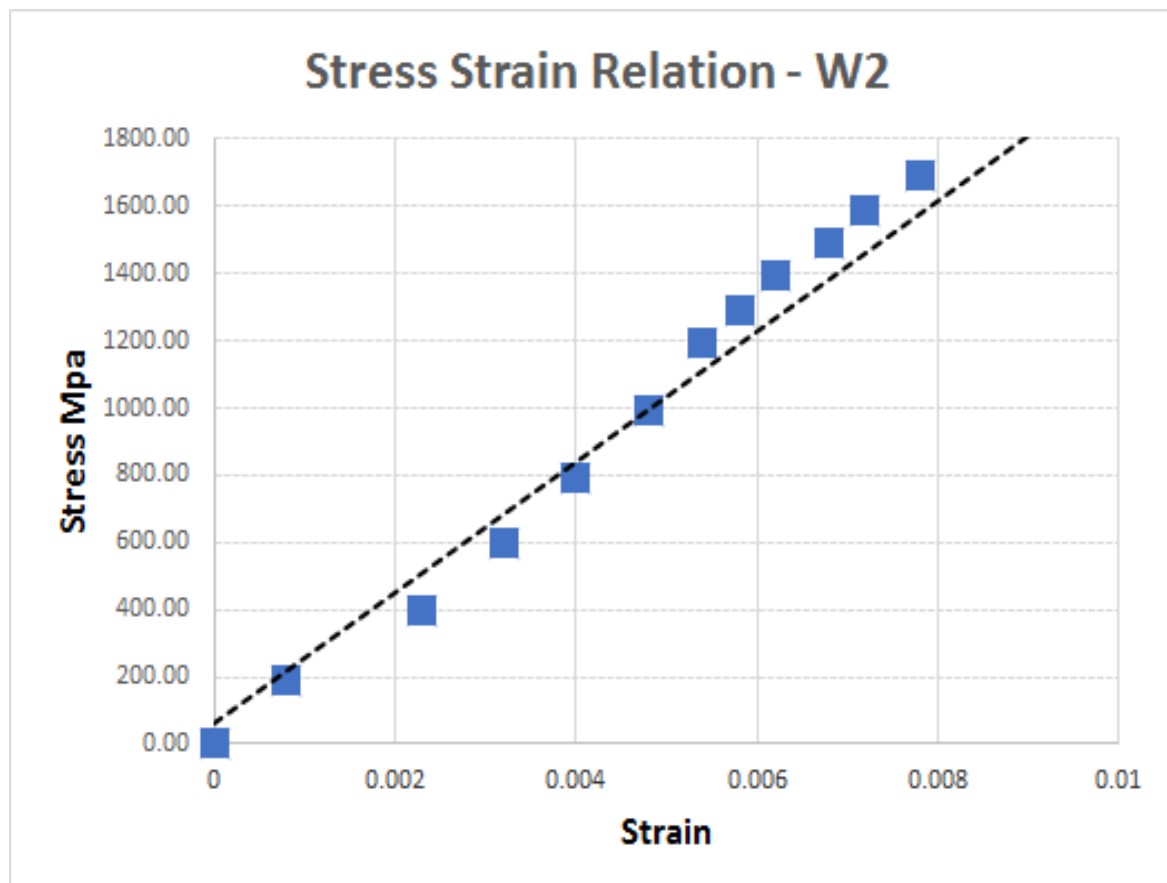
Reference # CED/TFL **7157** (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter # SAK-HDIK/RE-24

Dated: 25-06-2025

Graph (Page – 3/4)



Test Performed and Verified by:

To,

Mr. Nasimullah Jan (Resident Engineer)

SAK Consultants

Construction of Approach Roads of Kalur Kot Bridge at River Indus. ADP Scheme No. 1216/21044 (2024-25)

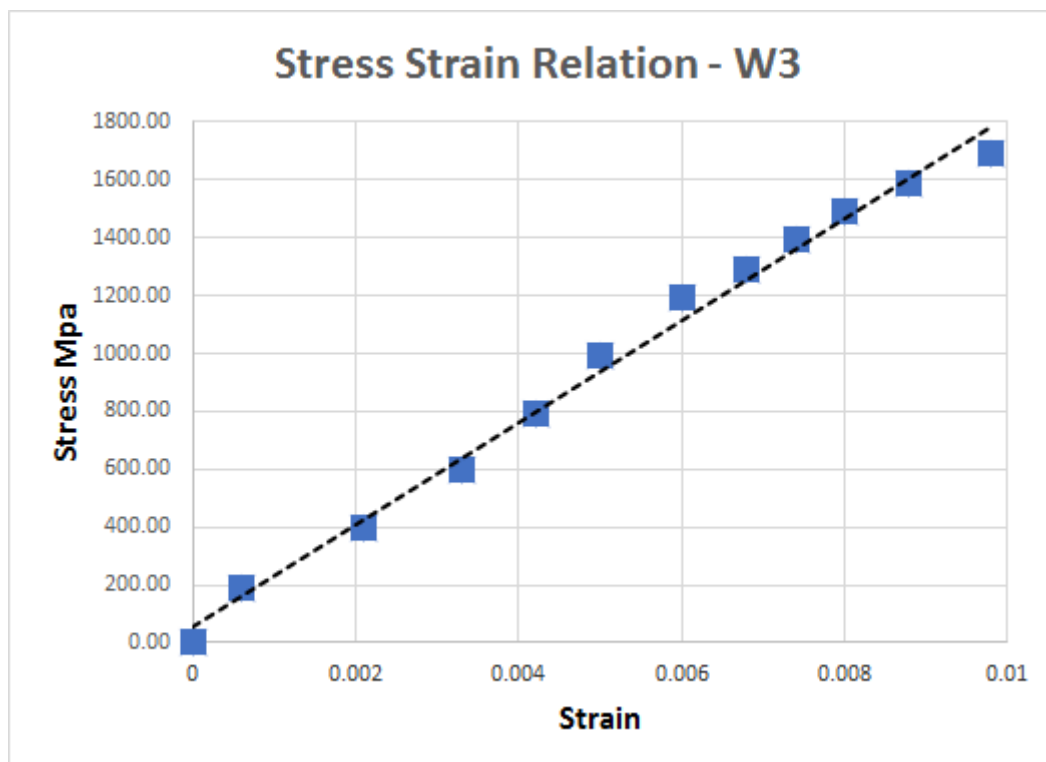
Reference # CED/TFL **7157** (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter # SAK-HDIK/RE-24

Dated: 25-06-2025

Graph (Page – 4/4)



Test Performed and Verified by:

To,

Mr. Adnan Yasir (Assistant Resident Engineer)

MM Pakistan (Pvt.) Ltd.

Upgradation of Sewerage System and Construction of Waste Water Treatment Plant (WWTP)

Jaranwala City (Package-02)

Reference # CED/TFL 7158 (Dr. Rizwan Riaz)

Dated: 27-06-2025

Reference of the request letter # MMP/1095/Jaranwala/DS/106/2025

Dated: 21-06-2025

Tension Test Report (Page-1/1)

Date of Test 30-06-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.365	3	0.370	0.110	0.107	30.50	43.20	62308	63833	88253	90412	1.1	13.8	SJ Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 1 Samples for Bend test														

Bend Test

3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,
 Mr. Wasif Manzoor
 Salman Developers
 Mian Anas Sb. Villa

Reference # CED/TFL 7159 (Dr. Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 30-06-2025
 Dated: 30-06-2025

Tension Test Report (Page-1/1)
 Date of Test 30-06-2025
 Gauge Length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.353	3	0.364	0.110	0.104	36.50	48.50	74566	78979	99081	104944	0.8	10.0	3"/8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

Ref: CED/TFL/06/7160

Dated: 30-06-2025

Dated of Test: 30-06-2025 (Dr. Rizwan Riaz)

To

Deputy Director (QCD)
Water and Sanitation Agency
Faisalabad
(M/s Fazal Concrete RCC Pipe Manufacturing Factory Niamuana to Malkhan wala, Road Near Iconic City, Faisalabad)

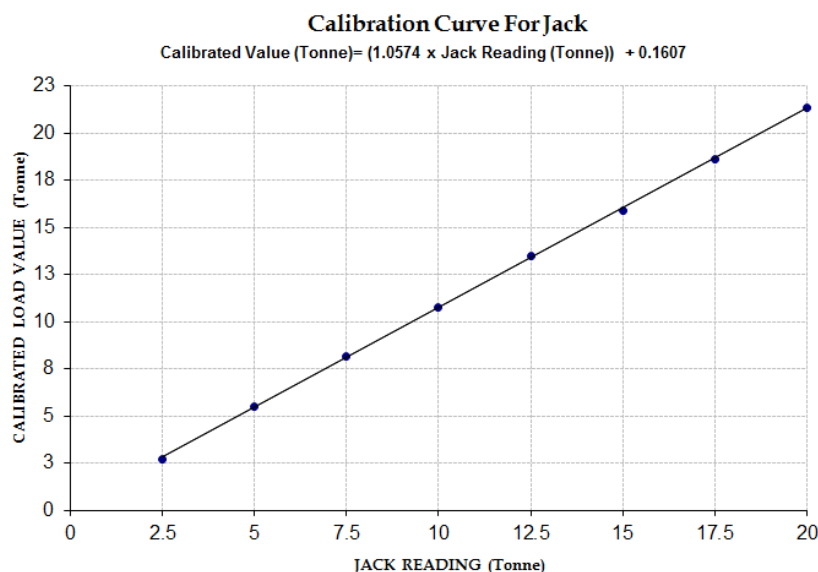
Subject: - CALIBRATION OF HYDRAULIC JACK. (MARK: TFL/06/7160)

Reference to your Letter No. 243/DD (QCD)/WASA/2025, Dated: 21/06/2025 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 25 (Tonne)
Calibrated Range : Zero - 20 (Tonne)

Hydraulic Jack Reading (Tonne)		2.50	5.00	7.50	10.00	12.50	15.00	17.50	20.00
Calibrated Load	(kg)	2700	5500	8150	10750	13500	15900	18600	21350
	(Tonne)	2.70	5.50	8.15	10.75	13.50	15.90	18.60	21.35

1 Tonne = 1000 kg



Test Performed and Verified by: